

The Main Menu

Newsletter for AppleWorks Users

Volume 2 Number 6 June 1987

Part 2

How Can I Move Thee? Let Me Count the Ways

by Steve High

The ins and outs of getting around in AppleWorks can be pretty confusing. As we discussed in Part 1 in last month's *Main Menu* (p. 1), the five basic routes are through the clipboard, through an ASCII file with carriage returns added to the end of each line, through a garden-variety ASCII file, via a DIF file in row order, and via a DIF file in column order.

Each method, though, includes a number of variations. The database can produce reports in table- or label-style format; label-style reports can include or exclude category names; you can import information into database files with 1-30 categories per record; and you can mix and match methods with varying results. Going all the way outside AppleWorks, you can even transfer data to VisiCalc in DIF-file format and read them back into AppleWorks directly as a VisiCalc file.

Of course, in addition to moving data from one application to another, you can move them a second or subsequent time if you need to. You can move from a module, then back into the same one—sometimes with interesting results.

The clipboard is the easiest route, and it's the only one that doesn't modify your data in some way. But you can use the clip-

Continued on p. 8.



Heard Here First

by Deborah de Peyster

It used to be called AppleWorks: You might have heard about Apple's plans to form a new company to handle all its application-software products. It doesn't have a name yet, but it'll be headed by **Bill Campbell**, a great guy and long-time Apple marketing and sales executive. But putting this new company together and determining which products it will sell and which will remain at Apple is pretty confusing.

For example, a number of current Apple programs are Apple's through contractual agreements with developers. Not all those contracts can be signed over easily to the new and eventually non-Apple-owned software company.

We've heard that AppleWorks, in particular, carries a fairly complicated contract under which Apple markets the program. We've heard rumors that Apple owns the rights to AppleWorks and can't transfer them to anyone else—any new Apple-founded software company included. We've also

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won't work with Image-Writer, Qume, and certain Epson printers that AppleWorks resets before each printing, though. AppleWorks deletes the boldface command from the printer when it resets it.

■ Control-Key Combinations

QI use AppleWorks 2.0 on the GS. With a Brother printer, I have to enter Control-M to switch to ten characters per inch when specifying control characters. When I enter Control-M, though, AppleWorks displays carriage returns. How can I get AppleWorks to accept Control-M as a control character, and not as a Return?

Roger Rodrigues,
Burr Ridge, IL

AControl-M is the same thing as a Return to your Apple. Try it: Go into AppleWorks' word processor and press Control-M. You'll see carriage-return characters on screen. Control-J means "down arrow," and Control-K is the same as an "up arrow." A number of keys on the Apple II are mapped to various control characters so that the computer can understand which key you pressed.

I doubt your Brother printer needs Control-M to switch to ten characters per inch. Since you didn't mention the model of your Brother printer, I can't tell you the correct characters required. Most printers, including Brothers, use escape-key combinations to turn on their various features. If you have a Brother HR-20, for example, the character combination required to switch on ten characters per inch is Escape-N.

■ Unwanted Headers

QAfter upgrading AppleWorks from 1.0 to 2.0, I'm

running into the following problem when I print labels. The first label contains the name of the report file, with the addresses following. Every sixth label shows the name of the report file again. I don't know how to get rid of it.

Lillian Seidman, Lafayette, CA

AYour label problem isn't a result of switching from AppleWorks 1.0 to 2.0. Your "print report header at top of each page" formatting option has been turned on. Most likely, every sixth label of your report is the top of each AppleWorks page.

Press OA-P from Review/Add/Change and select your label report. Press OA-O from your report to access printer options. Various formatting options are listed at the bottom of the screen. Type PH for "print report header at top of each page" to toggle the header option from "yes" to "no" and prevent headers from showing up on your labels.

Always turn off this option when printing labels. Also make sure the option OL (omit line when all entries on line are blank) is set to "no" and KS (keep number of lines the same within each record) is "yes." This will ensure that AppleWorks always starts printing at the beginning of each label, regardless of the contents.

One last word of advice: Make sure "accepts top-of-page commands" under "change printer specifications" is set to "no." This ensures that AppleWorks will print correctly at the beginning of each page of labels.

■ Mail-Merge Bug

QWhen printing mail-merge categories in the word processor, I run into a problem.

I have a document in which the first line is a mail-merge category optionally set to be deleted if the category is blank. When I print a letter with a blank first category, the following category prints on the far left side of the paper rather than at the left margin set in AppleWorks.

Howard Stirn, Cleveland, OH

AYou've found a bug in AppleWorks that we'll add to the list of future fixes when AppleWorks is revised. For the time being, however, there's an easy way around it. Simply add a blank line before the first category, and adjust the top or bottom margins accordingly if necessary. It appears that when AppleWorks deletes the first line containing a mail-merge category, it also deletes the left-margin command.

■ Transferring Spreadsheet Data

QIs there any way to transfer data from one AppleWorks spreadsheet to another without inserting the data into the spreadsheet? I'd rather the data replace existing cells rather than being inserted, which throws off my referenced formulas. Also, is there any way to transfer formula results without transferring the formula itself?

Ted Gold, Coral Gables, FL

AThere are two ways to transfer data within a spreadsheet. When you press OA-C to copy data, you can select "within worksheet" or "from clipboard." If you copy within a worksheet, the data replace existing data. If you copy from the clipboard, AppleWorks inserts these data.

Copying data from one spreadsheet to replace existing cells in another spreadsheet requires a little trick.

Copy the rows you want to move to the clipboard. This forces you to copy complete rows of cells at a time rather than selected ones, but don't worry about this for the time being.

Copy the data from the clipboard to an area below the new spreadsheet. Press OA-C: Select "within worksheet." Highlight cells you want to move within your worksheet, indicate the destination, and press Return. These cells will replace existing cells rather than being inserted. Once you've copied all rows, delete the data you copied below your spreadsheet.

There's also a way to transfer formula results without the formula itself if you have AppleWorks 2.0. When you move or copy data containing formulas to or from the clipboard, an enhancement in this version prompts you with the question, "From Clipboard? Formulas and values or values only?" Selecting "values only" transfers the formula results without the formula itself.

■ A Question of Compatibility

Q I have AppleWorks 2.0, Beagle Bros' Super MacroWorks, Applied Engineering's RamWorks III, and AE's AppleWorks II Expander software. I first installed the Expander software, then Super MacroWorks on AppleWorks 2.0. Then I used Quark's Catalyst 3.0 to put my new AppleWorks on a ProFile hard disk. Whenever I try to use AppleWorks I get the message "unable to locate the file Aplworks.Sys." I called Quark, Beagle Bros, and Applied, and they say

they don't support each other's programs.

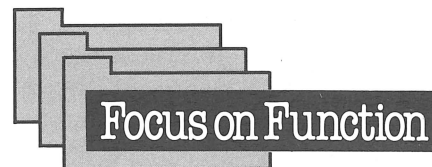
Tarsee Strong, Atlanta, GA

A That's one of the problems of using enhancement programs from different manufacturers. Many create extra startup files, reserve special areas in memory for their exclusive use, and so on. Sometimes you have to have several versions of AppleWorks, each with its own enhancement.

The problem you're experiencing, however, is that Catalyst 3.0 simply can't find the file that will start AppleWorks after you've added all the enhancements. When you moved the AppleWorks icon from a disk to your ProFile, the hard disk copied all the AppleWorks files and indicated automatically to Catalyst the name of the startup file. This file most likely has been renamed or doesn't exist.

To correct this, copy your AppleWorks disk and remove the file CATALYSTDESKTOP, the file that tells Catalyst the name of AppleWorks' startup file. Next install your enhancements on AppleWorks. Using the ProDOS System Utilities, list the files on this disk and note the first file ending in .SYSTEM. While in the System Utilities, copy the entire contents of this disk to the ProFile hard disk.

Now call Catalyst and select "add a program." Enter the filename ending in .SYSTEM when Catalyst asks you for the "system file" name. Be sure the prefix is set correctly if this system file resides in a subdirectory. Catalyst will now point to the correct startup file for your enhanced AppleWorks. ■



Quick-and-Dirty Category Rename

by Steve High

AppleWorks allows only three record-selection rules in the database. But if you create a new database made up of only those records that match your original selections, you can start again with an additional three rules.

Every time you make a new database from an ASCII or DIF file, though, you have to rename the categories. Unless you've got a memory like an android and a row of mechanical pencils across your chest, you'll have great difficulty adding more record-selection rules without renaming the categories first.

There's a solution—but it's not to everyone's taste, particularly if you're preparing an elegant-looking report. But if you're one of those people who'd rather write on a floppy disk with a silver felt-tip pen than hunt around for a label, you'll probably like it.

► A New Report Format

A rather obscure AppleWorks command in the label-style report format is the key to this procedure. It's Open apple-V (OA-V), and it bears only passing resemblance to the OA-V command in the review/add/change section of the database.

In the label-style report format, OA-V prints both category name and contents. A renamed name-and-address record, for example, looks like the data in the accompanying **Figure**.

Figure. In label-style report format, OA-V prints the category names and contents of each record.

```
Category 01:LAST NAME: High
Category 02:FIRST NAME: Steve
Category 03:COMPANY: Plansky/High PR
Category 04:STREET: 111 W. Evelyn Avenue, #210
Category 05:CITY: Sunnyvale
Category 06:STATE: CA
Category 07:ZIP: 94086
Category 08:WORK PHONE: 408-773-8000
Category 09:HOME PHONE: 408-247-6478
Category 10:Date Added: 5 May 87
```

This format is unacceptable for most applications—address labels, for example. But for certain purposes, such as recording data collected during scientific experiments, this format is quite satisfactory, perhaps preferable. And category names are a helpful “crib” when making additional record selections.

► The DIF Connection

DIF files are more convenient than ASCII for transferring data, because you don’t get the infamous “how many categories per record (1–30)” question. Unfortunately, though, DIF files strip away the category names you put in with OA-V.

To retain them, you have to use a disk printer that emulates the Apple Silentype to create a “pseudo-DIF” file. This adds a carriage return to the end of each line, thus delimiting the categories in each record. ASCII files you create this way retain category names and contents.

Once you’ve set up your disk printer, create a label-style report. Use OA-V on each category. Press OA-O to go to the printer-options menu and set all options to “no.” Set the paper length so that the number of categories in your database will divide evenly into the number of lines per page.

Setting the paper length correctly is vital if you’re transferring more than one page of records. Even though you’re printing to disk, AppleWorks will add enough carriage returns to avoid splitting a record between pages. This will cause your new database to put data into the wrong categories after it’s printed one “page.”

If you have fewer than 26 categories, an easy way to compute paper length is to make the number of inches in the paper length equal to the number of categories. The example in the **Figure** has ten categories, so you’d set the paper length to ten inches. The AppleWorks spreadsheet can perform more exotic calculations. Look for “No Margin for Error” in the next *Main Menu*, which will include a lookup table that generates minimum and maximum paper lengths for 1–30 category records.

► Other Solutions

There are a couple other ways around the renaming bottleneck, particularly if your data are moving from one database to the next. The first is to rename your original database with OA-N, then delete all the data you don’t want.

Suppose you want address-list records you created before January 1, 1987, with zip codes beginning with 9

and last names beginning with A–C. After saving and renaming your original database, you’d select records with last names beginning with A–C and zip codes beginning with 9.

At this point, you’d have used all three record-selection rules. Press OA-D and OA-9 to delete all visible records—not only unwanted records, but unwanted record-selection rules as well. You can now ask for all records created before January 1, 1987—effectively your fourth record-selection rule—and go on from there. If you can think backward as easily as forward, this works fine.

The other way is to select the data you want and move them to the clipboard. So what do you do with them now? You could create a new database with all the same categories and move them into it, but renaming categories is what we’re trying to avoid, right?

So, again, press OA-N to rename. Then delete all but one of the records in the database and move your selected data from the clipboard back to your renamed shell. AppleWorks won’t let you delete the last record from a database, so after you transfer your data, go find that straggler and erase it.

The advantage of this approach is that you always select records you want, instead of those you don’t want. The disadvantages are that you can’t make a fourth record selection conveniently and that the clipboard will hold only 255 lines of data.

If you find yourself painted into a corner with data on the clipboard and no place to put them, the way out is to proceed as in the earlier example.

Delete all but one record from your renamed database and move the clipboard data in. Next, reload the original database, make your fourth record selection, and copy it into your renamed database. Finally, install your original three record-selection rules to exclude unwanted data from the batch you just transferred.

This method isn't as inconvenient as it sounds, but it's not exactly smooth, either. The last thing you need to hear from AppleWorks is that the clipboard can hold only 255 records at a time. Since extra memory has become almost standard equipment, more and more users find that this limit clips their wings.

The latest version of Applied Engineering's desktop expander software increases the clipboard to a mind-boggling 15,000 lines. If you need more that, buy a Cray. The clipboard enhancement really changes the rules of the AppleWorks game. (If your version of the expander software is earlier than 5.2, you can get an upgrade by sending \$10 to Applied Engineering, P.O. Box 798, Carrollton, TX 75006, 214-241-6060.)

The clipboard—not ASCII or DIF files—becomes your first choice for moving files, and many habitual tricks, such as deleting the categories you don't want, fade away. ■



Taking the Air Out of Balloon Payments

by John B. Slack

"Henry, do you realize that

that young couple, the Jenkinses from across town, have bought the Johnsons' estate? How could they afford a house that size? Mildred says it was done with balloons. How can you buy a house with balloons? He's the new dentist, isn't he?"

One of the more innovative forms of financing is the use of *balloon mortgages*: The borrower makes reduced mortgage payments for a stipulated period of time, then a large final payment—the balloon payment. The rationale is based on the observation that almost all mortgages are paid off ahead of schedule. In fact, the average length of time a buyer stays in a house is less than ten years. It's very rare for a mortgage to last the full term.

Balloon payments are common in commercial and industrial financing, since they let an entrepreneur establish a business before facing the day the loan is due.

Since the standard payment on a short-term mortgage would be too high for many borrowers, some lenders offer a reduced-payment schedule the borrower can afford. By using the AppleWorks spreadsheet template presented here, you can quickly and easily determine the size of your balloon payment and the amount of principal and interest paid. Since a variety of loan- and mortgage-payment packages are available, you can use the powerful AppleWorks spreadsheet what-if capability to make comparisons and determine the best course of action.

You enter amount of money borrowed, annual interest rate, number of payments per year, term of the mortgage, and size of the regular payment. Your Apple calculates

the amount of the balloon payment and the total interest and total monies paid.

► Getting Started

Create a new spreadsheet file from scratch and call it Balloon Payment. A blank spreadsheet containing rows and columns appears. Position the cursor on cell B3 and type Balloon Payment on a Loan. Press Return. Now skip one row and go to cell B5. Type the following titles into cells B5 through B17: Amount of Loan (Principal), Amount of Regular Payment, Term in Years and Months, Annual Interest Rate, Number of Payments per Year, Decimal Years (Calc.), Total Number of Payments, Annual Int. Rate/Payment, Size of Balloon Payment, Total Monies Paid, Total Interest Paid.

Put your cursor on cell E5 and type "=" . Press Return. With the cursor still on cell E5, center this label: Press Open apple-L (OA-L), E (entry), L (label format), C (center). Now copy the label down column E to cell E17: Press OA-C, Return (staying within the worksheet), Return again to indicate the source of the material you want to copy. Move the cursor down one cell and type a period to indicate the start of the destination range. Move the cursor down again until it rests on cell E17, then press Return—voilà! Press OA-B to blank out

Figure 1. Entering spreadsheet-template labels.

Balloon Payment On A Loan	
Amount of Loan (Principal)	=
Amount of Regular Payment	=
Term in Years	=
and Months	=
Annual Interest Rate	=
Number Of Payments Per Year	=
Decimal Years (Calc.)	=
Total Number Of Payments	=
Annual Int. Rate/Payment	=
Size of Balloon Payment	=
Total Monies Paid	=
Total Interest Paid	=

the extra label in cell E11 and press Return. Your screen should look like **Figure 1**.

► Entering the Formula

The formula you use to calculate the amount of the balloon payment is quite complex: $B = (M(1 + ((I/N)^T))) - ((1 + (I/N))^P(((1 + ((I/N)^T) - 1)/(I/N)))$, where B = amount of balloon payment, M = amount of loan, I = annual interest rate, N = number of payments per year, T = total number of payments, and P = amount of regular payment.

The spreadsheet formula representing the above equation is too long to fit into one cell. To avoid this limitation, break it into parts: In cell F12, you'll calculate decimal years; in cell F13, you'll calculate total number of payments; in cell F14, you'll calculate annual interest rate per payment.

Place your cursor on cell F12 and enter $(12 * F7 + F8) / 12$; in cell F13, type $+ F10 * ((12 * F7) + F8 / 12)$; in cell F14, type $.01 * F9 / F10$; remember to press Return after each entry.

To enter the balloon-payment formula, position the cursor on cell F15. Type in the following formula and press Return:

$+ F6 + (F5 * ((1 + F14)^{F13})) - ((F6) * (((1 + F14)^{F13} - 1) / F14))$

Finally, in cell F16, type $+ F6 * F13$, and in cell F17, type $+ F16 - (F5 - F15) - F6$. Remember to press Return after each entry.

► Formatting the Cells

The values entered on the template and the results calculated have two different formats. Term in Years and Months, Number of Payments per Year, and Total Number

of Payments will be integers with zero decimal places. Amount of the Loan, Annual Interest Rate, Decimal Years, Regular Payment, Balloon Payment, Total Monies Paid, and Total Interest Paid will be integers with two decimal places.

To set these different value formats, press OA-V, V, F, 2, and Return. Now place the cursor on cell F7. Press OA-L, E, V, F, and Return. Repeat this sequence for cells F8, F10, and F13.

► Entering Data

After saving every penny you could get your hands on, you finally decide you have enough money to enter the Square Frisby business. You're convinced the product has a great future: The corners stick into trees and telephone poles and for some reason some guy from the CIA has ordered a gross for delivery to a laundry in the Middle East.

Now you have to find financing for the factory and equipment. You need \$90,000 for starters and possibly more later. A noted venture capitalist offers to loan you the money at 12.5 percent interest with payments of only

\$1100 per month for seven years and six months. The balance of the loan will be due on the last payment (the balloon payment).

To determine the size of your balloon payment and the amount of money paid in interest, put your cursor on cell F5 and enter 90000. In cell F6 enter 1100, in cell F7 enter 7, in cell F8 enter 6, in cell F9 enter 12.5, and in cell F10 enter 12.

Decimal Years, Total Number of Payments, Annual Interest Rate per Payment, Size of the Balloon Payment, Total Monies Paid, and Total Interest Paid are immediately shown in cells F12 through F16. How easily your Apple calculates in seconds something that took hours years ago! At this time your screen should look like **Figure 2**. Now you know why venture capitalists like to venture.

► Playing What-If

One of the most powerful features of an electronic spreadsheet is its ability to immediately provide the new result of a calculation when you change a parameter.

Let's assume you want to compare the results of differ-

Figure 2. Determining the size of your balloon payment.

Balloon Payment On A Loan

Amount of Loan (Principal)	=	90000.00
Amount of Regular Payment	=	1100.00
Term in Years	=	7
and Months	=	6
Annual Interest Rate	=	12.50
Number Of Payments Per Year	=	12
Decimal Years (Calc.)	=	7.50
Total Number Of Payments	=	90
Annual Int. Rate/Payment	=	.01
Size of Balloon Payment	=	67056.71
Total Monies Paid	=	99000.00
Total Interest Paid	=	74956.71

Figure 3. Comparing alternative loan arrangements.**Balloon Payment On A Loan**

Amount of Loan (Principal)	=	90000.00	125000.00
Amount of Regular Payment	=	1100.00	1100.00
Term in Years	=	7	10
and Months	=	6	0
Annual Interest Rate	=	12.50	12.50
Number Of Payments Per Year	=	12	12
Decimal Years (Calc.)	=	7.50	10.00
Total Number Of Payments	=	90	120
Annual Int. Rate/Payment	=	.01	.01
Size of Balloon Payment	=	67056.71	173976.27
Total Monies Paid	=	99000.00	132000.00
Total Interest Paid	=	74956.71	179876.27

ent loan alternatives. Place the cursor on cell F6. Press OA-C, then Return to keep the copy within the worksheet. At the prompt to indicate the source, move the cursor down to cell F16 and press Return.

The prompt now asks the destination. Place the cursor on cells G6, H6, and so on, and press Return. The prompt then goes through each term in the formulas in cells F12 through F16 and asks NO CHANGE or RELATIVE. Answer RELATIVE for each term. The screen now shows the data in column F repeated in columns G, H, and so on. To evaluate other financial alternatives, just change the data shown.

Your old friends Bubba and Rocky convince you that Big

Willy will loan you even more than \$90,000, with the same interest and regular payment size. In fact, Big Willy will loan you \$125,000 for ten years. To evaluate this alternative, place the cursor on cell G5 and change 90000 to 125000. In cell G7 change 7 to 10; in cell G8 change 6 to 0 (zero). Cell G15 now indicates that the balloon payment increases from \$67056.71 to \$173,976.27. (See **Figure 3**.) Big Willy is all heart.

Save this template to a data disk and recall it whenever you're considering balloon financing. Now you can predict the result before you make a potentially risky financial commitment. ■

Moving Data

Continued from p. 1.

board only to move into, not out of, the word-processor module.

To move out of the word processor, you have to print an ASCII text file. To transfer data to the spreadsheet, you have to use a DIF file. To move data from the word processor to the spreadsheet, therefore, you have to move to the database first, since the word processor can't print a DIF file, nor can the spreadsheet accept an ASCII file as its starting place.

► Painless Pathnames

You can inspect these various file types by loading them into the word processor as ASCII files.

Start by creating a word-processor file from an ASCII file instead of from scratch, as you usually do. When AppleWorks prompts you for the pathname, enter a slash, the name of your disk, another slash, and the name of an existing word-processing file on your disk. Use this form: /MYDISK/MYFILE.

Now, as it happens, you probably don't have any ASCII files on disk yet, but AppleWorks doesn't know that. It will try to read MYFILE just as if it were an ASCII file. Take a look at what it produces on the screen. You can recognize your text, but you'll see a lot of garbage strewn about—some of the control characters that explain your Open apple-O choices to your printer. (When you print a real ASCII file to disk, AppleWorks strips away all the word-processing commands, to leave only text.) Because it expects only ASCII

Favorites

► Building Macros

One of the problems in building macros is the variable length of AppleWorks printer and report-format menus. Here's a tip to help you find the last item on a variable-length menu quickly and accurately every time.

Rather than attempting to refer to the last menu item by number, try this: Pick menu-item number 1, then press the up-arrow key. You'll always end up with the last item on the list, and your macros will always select the last item even if you've changed the number of menu options. ■

—Steve High

text, AppleWorks tries to interpret the word-processing commands as if they were part of the text.

► Two Types of ASCII

Now, throw out that MYFILE with all the control characters, and get ready to look at the difference between the two types of ASCII files you can create with AppleWorks. Begin with a short AppleWorks word-processor document. Center and justify some of the text, and print the file to disk as ASCII.1. Immediately make a new word-processor file from ASCII.1 and name it Sample.1.

Now use a "disk" printer to save your original word-processor file to disk as described in Part 1 or in your AppleWorks manual (in the section on using AppleWorks with a modem). Call it ASCII.2 and re-create it in the word processor as Sample.2.

The two types of ASCII files are significantly different. The one you printed with AppleWorks' ASCII command (the last one on the printer-options menu) installs "soft" carriage returns, so that you can edit your text and reformat it easily in the word processor. Centering, justification, and other formatting commands are lost.

Sample.2, printed with the "disk" printer, preserves justification and centering by installing "hard" carriage returns at the end of each line. This type of ASCII file is more often than not the kind you'll want to use to move data in AppleWorks, because it preserves the shape of your data more faithfully.

► On to the Database

To see how the database handles the two kinds of ASCII files, create new database

files from ASCII.1 and ASCII.2. Name them DB.1 and DB.2. When AppleWorks prompts you for the number of categories, answer 1 in both places. Create a label-style report and print it to the screen. Notice that the database you created from the "disk" printer includes all your data, but that the other database lost some characters because of "soft" carriage returns.

Whenever you experience trouble converting to database files from ASCII, try reading them back into the word processor to see what's wrong.

To answer the "number of categories" question, count the number of carriage returns between the first category of one record and the first category of the next. If the number of carriage returns is irregular, you probably used AppleWorks' default "to a text (ASCII) file" option instead of a disk printer.

► Vectors and Tuples

You don't have to know the number of categories when you create an AppleWorks database from a DIF file. You can find out why by inspecting the two kinds of DIF files with your word processor.

Using all of a small spreadsheet or part of a large one, print two DIF files in row and column order, respectively. Call these files DIF.row and DIF.column. Now load DIF.column into the word processor.

If nothing else, this procedure will let you drop words such as *vectors* and *tuples* into your next cocktail-party conversation. At the top of the DIF file, the total number of vectors corresponds to the number of categories in a database report, while the num-

ber of tuples corresponds to the number of records.

Now load DIF.row into the word processor, and you'll see the number of vectors and the number of tuples are exactly opposite. That's why AppleWorks can form a database from a DIF file without asking you the number of categories you want. Of course, if you select "row" when you mean "column," you won't get the results you expected. Even though "row" is the AppleWorks default, it isn't the correct answer when moving a database to the spreadsheet and back to the database again.

For example, if you have a database with 30 records of seven categories each, you can read that into the spreadsheet, where you'll have seven columns and 30 rows. If you print that spreadsheet to DIF in row order, though, you'll wind up with a database of seven records with 30 categories in each.

► Getting It Right

The correct answer to the row-or-column question will be apparent if you can remember what the second category in the first record of your database is supposed to be.

Say you have a database consisting of ten records of three categories each: Name, Area Code, and Phone.

The first entry you print to a DIF file from a spreadsheet is always the entry in A1. The second entry is either A2 or B1, depending on which order you choose. If A1 is "John Jones," and A2 is "Bill Smith," a DIF file printed in that order won't be correct for your database. The second category in the first record should be John Jones' area code, found in B1.

Accordingly, you want to move in the order in which the columns are arranged (A, B, C), not the order in which the rows are arranged (1, 2, 3).

To review, remember that the clipboard is the best way to move data in AppleWorks

without changing them, but you can only enter the word processor through the clipboard, not move data out. ASCII and DIF files strip word-processing commands from your files, and formulas from your spreadsheet data. You can inspect DIF and ASCII

files with the word processor to determine why a transfer between database and spreadsheet isn't working.

Learning the subtleties of AppleWorks data transfer is the key to unlocking the full capability of this powerful program. ■

The Ins and Outs of ProDOS Pathnames

Let's take a closer look at pathnames. If AppleWorks can't begin your pathname, or announces without even looking that it can't find it (that is, your disk-drive light doesn't go on), you've typed an illegal pathname. If the disk drive lights, but AppleWorks still can't find the file, you've typed a legal pathname, but the wrong one.

What makes a pathname illegal? First of all, spaces. They're legal in AppleWorks, but not in ProDOS pathnames. If you type a space between parts of an AppleWorks file name, AppleWorks silently inserts a period. If you catalog your AppleWorks disks outside AppleWorks, you'll find many, many periods you didn't type yourself.

Too few slashes or too many also interfere with your pathname. The first character *must* be a slash, but nowhere else except to separate volumes, directories, subdirectories, and files.

Beginning a pathname with a number is an infraction of the rules of pathname grammar, too, but you can use numbers in positions 2-*n*. Don't use any other keyboard character except letters, numbers, and periods. Pathnames can be up to 64 characters long—but

you'll hate yourself in the morning if you make them even half that long.

To keep things simple, use the same pathname every time. If the name of your data disk is hard to type, you might want to format a floppy called A. Then every time AppleWorks asks for an ASCII file, type /A/B.

Remember, an ASCII file is like a rented car—you don't have to take good care of it. If you complete your data transfer, you'll have AppleWorks data in two places. You don't need it in a third. The next time you transfer data, write over the old ASCII file.

Because you're using the same pathname over and over, it will become easier to type correctly. You'll conserve space on your disk by not cluttering it with useless ASCII files. And you'll avoid the following unwelcome AppleWorks error message when you try to save your useful data files: "A file with this same name already exists on drive 2. The old file is not an AppleWorks word-processor file. As a precaution, you aren't being given the opportunity to replace the old file on disk."

Even more important than avoiding this message is avoiding the danger of printing an ASCII file over

a valuable AppleWorks file. AppleWorks warns you that the file exists, but lets you write over it if that's what you want.

So don't name your ASCII files anything you'd call a regular file, and whatever you call them, call them all the same thing. (I call mine "ASCII," to distinguish them from "DIF.")

You'll almost never need to distinguish one ASCII or DIF file from another. An exception occurs when you're studying the file types themselves.

Macros can type pathnames automatically—and always correctly—but what volume name should you use? I like /RAM/ASCII, because it executes so rapidly, but if you don't have a RAM disk, you'll have to try another strategy.

One idea is to use a single name such as DATA, BLANK, or WORK every time you format a floppy disk. The renaming utility on the ProDOS filer is very fast; you can use it to retitile your disks for archival purposes after they're full.

Whatever you do, don't let your creativity flower while writing pathnames. Find one you know how to type, and use it every time. □



New Products

AppleWorks Aweigh

by Paul Statt

"I was thinking of putting a book together—all the specifications of all the racing sailboats—and had all the research done and on my AppleWorks files. It just makes more sense to keep the records on the computer, where you can play with them," says J.D. Nelson.

Nelson, creator of **Nelson's Register of Coastal Cruisers** (P.O. Box 8, North Quincy, MA 02171, 617-426-4001), didn't set out to write AppleWorks templates for prospective buyers of boats and shrewd sail racers, but that's what he ended up with.

Nelson is a banker and avid sailor in North Quincy, Massachusetts. He chose AppleWorks as the medium for his register because he likes and uses AppleWorks; he didn't do market research. "I spent two and a half years creating these databases," Nelson says, "and figured I might as well sell them."

Nelson's Register offers four sets of AppleWorks disks. (For \$8 you can purchase a disk with a sampling of the programs.)

BoatWorks (\$34.95) is the heart of the series; it's a database of statistics on sail and power boats under 36 feet in length.

If you're just starting out in sailing and the rules of the sea, sailing jargon, and sailing lore seem like a foreign language, **SailWorks** (\$34.95),

"a primer for beginning sailors," can help.

If you've already got your sea legs and are ready to start racing, take a look at **WaterWorks** (\$34.95), a comprehensive history of sail racing, from the America's Cup to local regattas. **YachtWorks** (\$34.95) is currently in the works: It will contain six regional compilations of all registered yachts, with names of the designer, builder, and owner of every yacht in your harbor, as well as technical specifications.

Sailing isn't all facts and figures, as any sailor will agree. Nelson considers the human factor in his database files, too. He has included AppleWorks word-processor biographies of all the builders and designers of the boats he lists in his databases. "I've tried to capture some each designer's philosophy in the bios," Nelson adds. If you didn't know there was a philosophy of boat-building, but are intrigued by the sea and are eager to learn, the Register series is for you. ■

Reviews

AppleWorks-Style Communications

by Paul Statt

Serious AppleWorks users who are also serious about telecommunications don't want to give up that familiar file-card interface. Good news—you don't have to. For AppleWorks-style telecommunications, you have three choices: Apple Computer's own **Apple Access**, Pinpoint's **Point to Point**, or PBI's **CommWorks**.

Apple Access (20525 Mariani Avenue, Cupertino, CA 95014,

408-996-1010), ironically, doesn't come as close to "emulating" AppleWorks as CommWorks and Point to Point do. Access works best if you communicate regularly with another system also using Access. Access lets you save incoming data as AppleWorks word-processor files, and send AWP files as well.

► Formats

Let's look more closely at the two third-party programs. CommWorks converts communicated files to AppleWorks word-processor files better than Point to Point does. Using CommWorks, you simply specify that all files you'll be receiving with a "CommWorks communications file" will be AppleWorks word-processor files. A CommWorks communications file contains all the information you'll need to communicate with each telephone number you call: terminal characteristics, baud rate,



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parity, log-on macros, and so forth.

Because each telephone number enjoys its own CommWorks communications file, dialing is simple—after you set up the file and load it from disk.

Point to Point users, on the other hand, can choose from among several telephone numbers stored on the Point to Point working disk. When you alter the communications characteristics, you change them for every number you dial until you edit them again. Neither method is intrinsically better; both get the job done easily.

► Receiving Data

For AppleWorks fans, the CommWorks advantage is that you can receive all data as AppleWorks files. With Point to Point, you'll need to turn to the Other Activities menu and run the handy "convert TXT to AWP" option.

Point to Point doesn't do this as well as I'd like—some versions of AppleWorks have trouble reading the files. I usually just save the received file as a text (TXT) file, and

use AppleWorks to make a new file for the word processor from a text (ASCII) file.

► Sending Files

Point to Point shines when it's time to send AppleWorks files. Point to Point's DSEND command (Open apple-2) looks at the current disk, and lets you choose the file you want to send—AppleWorks word processor or text—highlight it, and send it. It's that simple.

CommWorks, on the other hand, lets you set the file-transfer standard to ProDOS/AppleWorks. CommWorks presents a list of AppleWorks files on the current disk, but you can't send them unless the receiving computer is also using CommWorks.

► Terminal Emulation:

Nonstandard Hardware

Point to Point has a better terminal-emulation record than CommWorks, although PBI says this feature has been improved in the latest version of CommWorks (1.4). That means that if you have anything other than a "common" modem and interface—something other than a Hayes Micromodem, an Apple

Modem, an Apple Super Serial Card, and so on—Point to Point will be easier to use than CommWorks: Point to Point is more likely to be able to handle your hardware. If you have one of the more popular modems, though, you may only be confused by the wealth of choices Point to Point offers.

Pinpoint and PBI have updated both products to work with the Apple IIgs modem port.

If you're an AppleWorks user who receives numerous files from a variety of computer models in all kinds of formats, I recommend CommWorks. If you're an AppleWorks writer primarily concerned with transmitting word-processor files, or ASCII text, to other systems, go with Point to Point. ■

Product Information

CommWorks 1.3

PBI Software
1163 Triton Drive
Foster City, CA 94404
(415) 349-8765
\$95

Rating: 

Point to Point 2.0

Pinpoint Publishing
5901 Christie Avenue
Emeryville, CA 94608
(415) 654-3050
\$129

Rating: 

Favorites

► Rounding in 2.0

AppleWorks 2.0 has a built-in rounding function (@round) that works almost perfectly. When you work with money, though, going to the next full cent means that the actual unrounded answer must be one hundred-thousandth of a cent (.00001) or more over the exact half-cent mark. Here's a formula that rounds upward at exactly the half-cent mark (mathematicians, statisticians, and computer programmers may figure otherwise, but in business, 500000/1000000ths isn't zero—it's one cent):

@INT(K11*.15*100+.5000005)/100 ■

—John Ayres, Jermyn, PA

The Main Menu reviews range from poor to excellent denoted by one to five red apples. If a product receives one red apple, it means the reviewer wouldn't spend his money to buy it and neither should you. If it receives five red apples, it means that our usually tight-fisted reviewer would part with his money to buy it because of the value it offers in increased productivity and performance.

excellent	
good	
satisfactory	
fair	
poor	